

REMARKS

The Office Action of March 27, 2006 rejected claims 1-17 under 35 U.S.C. 101 as being directed to non-statutory subject matter. The Office Action further rejected claims 15-17, 30-32, 43-48, and 58-60 under 35 U.S.C. 103(a) as being unpatentable over Black et al. (U.S. Patent No. 6,208,873, "Black") in view of Antonio et al. (U.S. Patent No. 6,483,817 B1, "Antonio"). The Examiner allowed claims 18-29, 33-42, and 49-57. Applicants' attorney thanks the Examiner for the indications of allowance and respectfully traverses the rejections.

Claims 1-17 are not unpatentable as being directed to non-statutory subject matter.

The Office Action at page 2 states that "[c]laims 1-17 are currently believed to be non-statutory, since it appears to recite a form of energy, *per se* which is not currently deemed to fall into one of the four statutory classes of invention and would not enable the functionality of the program to be realized without further hardware, e.g., a processor, transmitter or receiver."

Claim 1 is directed to a "common power control signal embodied on a carrier wave and transmitted from a base station to a plurality of subscriber units in a code division multiple access wireless communication system" that includes "a plurality of power control bits" and "a plurality of inhibit bits." Thus, the preamble of this claim requires the interaction of both a base station and a plurality of subscriber units, which effectively enable the functionality of the subject matter of these claims. Other apparatus type claims and method claims having these limitations are currently allowed. Claims 2-14 depend either directly or indirectly from claim 1.

Claim 15 is directed to a "common power control and quick paging channel embodied on a forward link carrier wave of a Walsh channel in a code division multiple access wireless communication system and transmitted from a base station to a plurality of subscriber units."

Thus, the preamble of this claim also requires the interaction of both a base station and a plurality of subscriber units, which effectively enable the functionality of the subject matter of these claims. Claims 16-17 depend from claim 15.

In further response to this rejection, the undersigned attorney refers the Examiner to The United States Patent and Trademark Office OG Notices: 22 November 2005, entitled: Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility. In part, these rules refer to the Court of Appeals for the Federal Circuit opinions in State Street Bank & Trust Co. v. Signature Financial Group Inc., 149 F. 3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) and AT&T Corp. v. Excel Communications, Inc., 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999). These decisions explained that, to be eligible for patent protection, the claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02.

Claims 1-17 certainly produce a useful, concrete, and tangible result. In particular, these claims address not only the creation but the transmission of communication signals that carry information to produce a tangible and useful result. Following the analysis set forth in the cited guidelines reveals that these claims do fall within the scope of statutory subject matter.

Claims 15-17, 30-32, 43-48, and 58-60 are not rendered obvious by Black in view of Antonio

Claim 15 is directed to a common power control and quick paging channel embodied on a forward link carrier wave of a Walsh channel in a code division multiple access wireless communication system, claims 30-32 are directed to a base station that produces such a common power control and quick paging channel, claims 43-48 are directed toward a subscriber unit that

receives such a common power control and quick paging channel, and claims 58-60 are directed to a method for transmitting the common power control and quick paging channel.

Focusing on claim 15, the power control signal, which is transmitted from a base station to a plurality of subscriber units, includes: (1) a common power control signal that is mapped to a first portion of the Walsh channel; and (2) a quick paging signal that sends pages to the plurality of subscriber units and that is mapped to a second portion of the Walsh channel. According to the elements of claim 15, a single Walsh channel is used to carry both a common power control signal and a quick paging signal.

Black describes the generation and transmission of power control bits. Black fails to disclose, teach, or suggest a power control signal having a *common power control signal and a quick paging signal*. The Office Action admits that Black does not meet the elements of claim 15 and cites Antonio to meet the shortcomings of Black.

Antonio is cited for the proposition that multiple CDMA channels may share a frequency band. This proposition is true for all CDMA systems. However, what claim 15 requires is that both a power control signal and a quick paging signal are carried on a particular Walsh channel. Each Walsh channel corresponds to a particular Walsh code and each Walsh code is orthogonal to all other Walsh codes used within a common frequency band of the CDMA system.

With prior systems, each information signal was modulated with a single respective Walsh code. However, with the elements of claim 15, a single Walsh code carries both a common power control signal and a quick paging signal. One example of how this may be accomplished (as illustrated in FIG. 11 and described in corresponding text of the present application) is to use a two-dimensional constellation that carries two (or more) bits per symbol. With this example, a first signal is mapped to a quadrature portion of the constellation while a

second signal is mapped to an in-phase portion of the constellation. Antonio does not describe how two separate information signals may be carried by a single Walsh channel, only that multiple CDMA channels operate in a single frequency band. Thus, Antonio fails to meet the shortcomings of Black and the combination of Black and Antonio fails to disclose, suggest, or teach all of the elements of claim 15. For these reasons claim 15 is not rendered obvious by the combination of Black and Antonio.

Independent claims 30, 43, and 58 include the same/similar limitations as does claim 15. Thus, Black and Antonio fail to render claims 30, 43, and 58 obvious. Because claims 16-17 depend from claim 15, because claims 31-32 depend from claim 30, because claims 44-48 depend from claim 43, and because claims 57-60 depend from claim 58, Black and Antonio also fail to render these claims obvious.

CONCLUSIONS

Pending claims 1-60 are allowable. A Notice of Allowance is courteously solicited. Please direct any questions to the undersigned attorney. Applicants' attorney requests that the Examiner phone him to discuss this response.

Respectfully submitted,

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